VICETON- chloramphenicol tablet, coated Osborn

DESCRIPTION:

Chloramphenicol is a broad-spectrum antibiotic shown to have specific therapeutic activity against a wide variety of organisms. Its activity was first demonstrated in culture filtrates from a species of soil organism collected in Venezuela, later designated as **Streptomyces venezuelae**. The antibiotic was subsequently isolated from culture filtrates (1), identified chemically (2), and later synthesized (3).

Aqueous solutions of chloramphenicol are neutral in pH. Chloramphenicol is stable for several years at room temperature and forms colorless to yellowish-white crystals in the shape of elongated plates or fine needles. It is only slightly soluble in water, but soluble in alcohol and propylene gylcol.

Chloramphenicol is exceptionally stable in the presence of high pH, although it is destroyed at pH's in excess of 10. Dissolved in distilled water, it can withstand boiling for five hours (1).

ACTIONS:

At low concentrations, chloramphenicol exerts a bacteriostatic effect on a wide range of pathogenic organisms, including many Gram-positive and Gram-negative bacteria, spirochetes, several rickettsia and certain large viruses and Mycoplasma (PPLO) (4,5,6,7,8,9,10,11,12,13, and 13a). At high concentrations, it inhibits growth of animal and plant cells.

Chloramphenicol exerts its bacteriostatic action by inhibiting protein synthesis in susceptible organisms. Complete suppression of the assimilation of ammonia and of the incorporation of amino acids, particularly glutamic acid, together with an increased formation of ribonucleic acid (RNA), lead to an inhibition of bacterial growth (4, 14, 15, 16, and 17).

Chloramphenicol antagonizes the action of such antibiotics as penicillin and streptomycin, which act only on growing cells, but is synergistic to tetracycline, which also acts by inhibiting protein synthesis. (18) It is possible the chloramphenicol would produce similar synergism with other antibiotics which act by inhibiting protein synthesis.

In this respect, the experimentally demonstrated synergistic action between chloramphenicol and gamma-globulin should be mentioned. Clinical observations in man and corresponding investigations in laboratory animals experimentally infected with various pathogenic bacteria have shown that a combination of chloramphenicol with gamma-globulin or specific antisera has a greater therapeutic effect than would be expected from a mere addition of the individual effects (19,20, 21, and 22).

Many experiments have revealed that the development of resistance to chloramphenicol is rare compared with that occurring with other important antibiotics. (23,24, 25, 26, 27, 28, 29, 30, 31, 32, 33, and 34) Bacterial resistance may develop in some strains against chloramphenicol but has been encountered only infrequently in clinical usage.

Chloramphenicol achieves maximum serum levels very rapidly following oral, intravenous and intraperitoneal administration. Intramuscular injection with chloramphenicol, except certain soluble forms, results in a somewhat delayed absorption and lower serum levels than when given by the oral, intravenous, or intraperitoneal route.

Chloramphenicol diffuses readily into all body tissues, but at different concentrations. Highest concentrations are found in the liver and kidney of dogs indicating that these organs are the main route of inactivation and excretion of the metabolites. The lungs, spleen, heart and skeletal muscles contain concentrations similar to that of the blood (27, 35, 36, 37, 38, and 39).

Chloramphenicol reaches significant concentration in the aqueous and vitreous humors of the eye from the blood (4).

A significant difference from other antibiotics is its marked ability to diffuse into the cerebrospinal

fluid. Within three to four hours after administration, the concentration in the cerebrospinal fluid has reached, on the average, 50% of the concentration in the serum. If the meninges are inflamed, the percentage may be even higher (4, 27, 29, 40, 41, 42, and 43).

Chloramphenicol diffuses readily into milk, pleural and ascitic fluids and crosses the placenta attaining concentrations of about 75% of that of the maternal blood (36 and 44).

Chloramphenicol is rather rapidly metabolized, mainly in the liver, by conjugation with glucuronic acid.

Approximately 55% of a single daily dose can be recovered from the urine of a treated dog. A small fraction of this is in the form of unchanged chloramphenicol (36).

A single intravenous dose of 150 mg/kg (approximately 68 mg/lb) in propylene glycol is the maximum dose tolerated by the dog. (45) No toxic effect was observed when dogs were administered orally, 200 mg/kg (approximately 91 mg/lb) daily for over four months. (40) In the mouse, the LD-50 is 150-250 mg/kg (68 to 114 mg/lb) body weight by intravenous injection and 1,500 mg/kg (approximately 681 mg/lb) by the oral administration (1 and 46).

INDICATIONS:

Chloramphenicol Tablets are recommended for oral treatment of the following conditions in dogs:

- Bacterial pulmonary infections caused by susceptible microorganisms such as: *Staphylococcus aureus*, *Streptococcus pyogenes* and *Brucella bronchiseptica*.
- Infections of the urinary tract caused by susceptible microorganisms such as: *Escherichia coli*, *Proteus vulgaris*, *Corynebacterium renale*, *Streptococcus* spp., and *hemolytic Staphylococcus*.
- Enteritis caused by susceptible microorganisms such as: *E. coli, Proteus* spp., *Salmonella* spp., and *Pseudomonas* spp.
- Infections associated with canine distemper caused by susceptible microorganims such as: *B. bronchiseptica*, *E. coli*, *P. aeruginosa*, *Proteus* spp., *Shigella* spp. and *Neisseria catarrhalis*.

Additional adjunctive therapy should be used when indicated. Most susceptible infectious disease organisms will respond to chloramphenical therapy in three to five days when the recommended dosage regimen is followed. If no response to chloramphenical therapy is obtained in three to five days, discontinue its use and review the diagnosis. Also, a change of therapy should be considered.

Laboratory tests should be conducted including *in vitro* culturing and susceptibility tests on samples collected prior to treatement.

CONTRAINDICATIONS:

Because of potential antagonism, chloramphenicol should not be administered simultaneously with penicillin or streptomycin.

WARNING:

NOT FOR USE IN ANIMALS WHICH ARE RAISED FOR FOOD PRODUCTION. CHLORAMPHENICOL PRODUCTS SHOULD NOT BE ADMINISTERED IN CONJUNCTION WITH OR 2 HOURS PRIOR TO THE INDUCTION OF GENERAL ANESTHESIA WITH PENTOBARBITAL BECAUSE OF PROLONGED RECOVERY.

CHLORAMPHENICOL SHOULD NOT BE ADMINISTERED TO DOGS MAINTAINED FOR BREEDING PURPOSES. SOME EXPERIMENTS INDICATE THAT CHLORAMPHENICOL CAUSES IN EXPERIMENTAL ANIMALS, PARTICULARLY IN FEMALES, SIGNIFICANT DISORDERS IN MORPHOLOGY AS WELL AS IN FUNCTION OF THE GONADS.

HAZARDS AND PRECAUTIONS:

1. This antibiotic contains a chemical structure (nitrobenzene group) that is characteristic of a group of drugs long known to depress hematopoietic activity of the bone marrow (54).

- 2. *In vitro*-tissue culture studies using canine bone marrow cells have demonstrated that extremely high concentrations of chloramphenical inhibit both uptake of iron by the nucleated red cells and incorporation of iron into heme (55).
- 3. Chloramphenicol products should not be administered in conjunction with or two hours prior to the induction of general anesthesia with pentobarbitol because of prolonged recovery time.
- 4. Chloramphenicol products should not be administered to dogs maintained for breeding purposes. Some experiments indicate that chloramphenicol causes, in experimental animals, particularly females, significant disorders in morphology as well as in function of the gonads.

ADVERSE REACTIONS:

Certain individual dogs may exhibit transient vomiting or diarrhea after an oral dose of 25 mg/lb body weight (49).

DOSAGE AND ADMINISTRATION:

Dogs-25 mg/lb body weight every 6 hours for oral administration.

CAUTION:

Federal law restricts this drug to use by or on the order of a licensed veterinarian.

Keep out of reach of children.

Store at or below 25°C (77°F) in a dry place.

HOW SUPPLIED:

250 mg	Bottles of 500's, 1000's
500 mg	Bottles of 500's
1 gram	Bottles of 100's

REFERENCES:

- 1. Ehrlich, J., Q.R. Bartz, R.M. Smith, D.A. Joslyn and P.R. Burkholder (1947): Science 106, 127.
- 2. Rebstock, M.C., H.M. Crooks, Jr., J. Controulis and Q.R. Bartz (1949): J. Amer. Chem. Soc. 71, 2458-2462.
- 3. Controulis, J., M.C. Rebstock and H.M. Crooks, Jr. (1949): J. Amer. Chem. Soc. 71, 2463-2468.
- 4. Barber, M. and L.P. Garrod (1963): Antibiotic and Chemo-therapy. E. and S. Livingston, Edinburgh, London: 116 to 128.
- 5. Christi, A.B. (1963): Practitioner 191, 588-593.
- 6. Lange, A. and E. Vogel (1958): Z. Hyg. infektionshrankh. 144, 555-563. Ref.: Landw. Zbl. Abt. IV, 5, 1960, 2188.
- 7. Schirmer, R.C., F.E. Eades and J.P. Newman (1952): Vet. Med. 46, 485-490 Ref.: Vet. Rec. 64, 1952, 597.
- 8. Smadel, J.E. and E.B. Jackson (1947): Science 106, 418-419.
- 9. Zettl, K. (1960): Vet.-Med. Nachr, 25-35.
- 10. Godzeski, C.W. and D.E. Pavey (1965): Nature 205, No. 4975, 1017 to 1018.
- 11. Hille, G. and E. Ludwig (1964): Mh. Vet.-Med. 20, 704-708.
- 12. Hubrig, Th. and D. Schimmel (1965): Mh. Vet.-Med. 20, 171-174.
- 13. Schimmel, D. and Th. Hubrig (1965): mh. Vet.-Med. 20, 334-338.

- 13a. Hagen, Wm. A. and Bruner, D.W. (Third Edition, 1957): The Infectious Diseases of Domestic Animals, Cornell University Press. 1479.
- 14. Brock, Th. D. (1963): J. Bact. 85, 527-531.
- 15. Brock, T.D. Chloramphenicol, Bacterial. Rev. 25: 32-48, 1961.
- 16. Saurat, P. and R. Lautie (1959): Rev. Med. Veterin. 22, 689-701.
- 17. Schaub, F. (1962): Schweiz, Arch. Tierheilk, 104, 373-384.
- 18. Reedy, R.J., W.W. Wright, E.J. Oswald and M. Ostrolenk (1958): Antibiot. Ann. 1957/58, 745-750.
- 19. Fisher, M.W. (1957) Antib. Chemoth. 7, 315-321.
- 20. Manning, M.C., L.A. Gagliardi and M.W. Fisher (1958): Antibiot. Ann. 1957/58, 566-571.
- 21. Reedy, R.J., E.J. Oswald and W.W. Wright (1958): Antibiot. Ann. 1957/58, 581-584.
- 22. Waisbren, B.A. (1957) Antib. Chemoth. 7, 315-321.
- 23. Beseth, L. (1963): Nord. Vet.-Med. 15, 745-754.
- 24. Gedek, W., R. Dunkel and L. Kotter (1964): Tierarztl, Umsch. 19, 337-340.
- 25. Kettner, H. and A. Braunsteiner (1960): Tierarztl, Umsch. 15, 249-255.
- 26. Kortum, H. (1963): Vet. Med. Diss. Munchen.
- 27. Kraft, H. (1960): Tierarztl, Umsch. 15, 58-60.
- 28. Kraft, H. (1962): Tierarztl, Umsch. 17, 278-280.
- 29. Lettow, E. (1954): Tierarztl, Umsch. 9, 227-230.
- 30. Manten, A., E.H. Kampelmacher and P.A.M. Guinee (1963): T. Dierganeesk. 88, 411-417.
- 31. Palyusik, M. (1963)" Mag. allator. Lapja 18, 356-357. Ref.: Vet Bull. 34, 1964, 317.
- 32. Ramsay, C.H. and P.R. Edwards (1961): Appl. Microbiolog. 9, 389-391.
- 33. Smith, H.W. (1954): Vet. Rec. 66, 42-43.
- 34. Smith, W. H. and W.E. Crabb (1956): Vet. Rec. 68, 274-277.
- 35. English, P.B. and A.A. Seawright (1961): Aust. Vet. J. 37, 9-13.
- 36. Glazko, A.J., L.M. Wolf, W.A. Dill and A.C. Bratton, Jr. (1949): J. Pharmacol. exp. Ther. 96, 445-449.
- 37. Glazko, A.J., H.E. Carnes, A. Kazenko, L.M. Wolf and T.F. Teutner (1958): Antibiot. Ann. 1957/58, 792-802.
- 38. Eads, F.E., A.J. Glazko, L.M. Wolf, J.Erlich and M. Galbraith (1952): Amer. J. Vet. Res. 13, 204-206.
- 39. Leopold, I.H., Nichols, A.C. and Voegl, A.W., Penetration of Chloramphenicol U.S>P. (Chloromycetin) into the Eye. Arch. Ophth., 44:22, 1950.
- 40. Gruhzit, O.M., R.R. Risken, T.F. Reutner and E. Martino (1949): J. Clin. Invest. 28, 943-951.
- 41. McCrumb, Jr., R.R., M.J. Snyder and W.J. Hicken (1958): Antibiot. Ann. 1957/58, 837-841.
- 42. Ross S.H. Bischoff, W. Preissner and W. Orr (1949): J. Clin. Invest. 28, 1050.
- 43. Roy, T.E., E. Krieger, G.Craig, D. Cohen, G.A. McNaughton and N. Silverthorne (1952): Antib. Chemoth. 2, 505-516.
- 44. Walter, M. and L. Heilmeyer (1954): Antibiotika-Fibel. Georg Thieme Verlag, Stuttgart, 1954.

- 45. Ehrlich, J. chloramphenicol. Encyclopedia of Chemical Technology. 4: 928-936, 1964.
- 46. Cheymol, J. (1955): Arzeimeittel Forsch. 5, 1-9.
- 47. Smith, R.M., D.A. Joslyn, O.M. Gruhzit, I.W. McLean, M.A. Penner and J. Ehrlich (1948): J Bact. 55, 425-448.
- 48. Van Looveren, L.J. (1958): Schweiz. Arch. Tierheilk, 100, 459-467.
- 49. Sogtrop, H.H. (1956): Tierarztl, Umsch. 11, 257-261.
- 50. Hrenoff, A.K. (1962): Med. exp. 6, 118-122.
- 51. Nelson, A.A. and J.L. Radomski (1954): Antib. Chemoth 4, 1174-1180.
- 52. Reutner, T.F., R.E. Maxwell, K.E. Weston and J.K. Weston (1955): Antib. Chemoth. 5, 679-711.
- 53. Weston, J.D., T.F. Reutner, R.Q. Thompson and R.E. Maxwell (1954): Fed. Proc. 13, 416.
- 54. Jones, L.M., Veterinary Pharmacology and Therapeutics, 3rd Edition, Iowa State University Press, Ames, Iowa, 539-542, 1965.
- 55. Ward, H.P., The Effect of Chloramphenicol on RNA and Heme Synthesis in Bone Marrow Cultures. Journ. Lab and Clinical Med., 68: 403, 1966.
- 56. The Merck Veterinary Manual, 2nd Edition, Merck and Co., Inc., Rahway, N.J., 522-524, 1961.



Chloramphenicol should not be administered to dogs maintained for breeding purposes. Some experiments indicate that chloramphenicol causes in experimental animals, particularly in females, significant disorders in morphology as well as in function of the gonads.



OBSERVE LABEL DIRECTIONS



@Registered Trademark of Bimeda, Inc.

Bimeda, Inc. is a division of Cross Vetpharm Group, Ltd.

Bimeda, Inc. Le Sueur, MN 56058

Product No. 1VICO04 8VIC004-1104

Viceton[®] Chloramphenicol

250 mg tablets

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

FOR ANIMAL USE ONLY KEEP OUT OF REACH OF CHILDREN

NADA 055-059, Approved by FDA

NET CONTENTS: 500 Tablets (250 mg each) **Osborn**®

INDICATIONS: Viceton (chloramphenicol) tablets are indicated for treatment of the following conditions in dogs caused by chloramphenicol susceptible microorganisms: Bacterial gastroenteritis associated with bacterial diarrhea, bacterial pulmonary infections and bacterial infections of the urinary tract.

DOSAGE: Dogs-25 mg/lb body weight every 6 hours via oral

WARNING: Not for use in animals which are raised for food production. Chloramphenicol products should not be administered in conjunction with or 2 hours prior to the induction of general anesthesia with pentobarbital because of prolonged recovery.

Read package insert carefully before use. Store at or below 25°C (77°F) in a dry place.

LOT: EXP:

Chloramphenicol should not be administered to dogs maintained for breeding purposes. Some experiments indicate that chloramphenicol causes in experimental animals, particularly in females, significant disorders in morphology as well as in function of the gonads.





@Registered Trademark of Birmeda, Inc.

Bimeda, Inc. is a division of Cross Vetpharm Group, Ltd.

Manufactured by: Bimeda, Inc. Le Sueur, MN 56058 Product No. 1VICO02 8VIC002-1104

CE CON Chloramphenicol

1 Gram Tablets

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

FOR ANIMAL USE ONLY KEEP OUT OF REACH OF CHILDREN

NADA 055-059, Approved by FDA

NET CONTENTS: 100 Tablets (1 Gram each) Osborn®

INDICATIONS: Viceton (chloramphenicol) tablets are indicated for treatment of the following conditions in dogs caused by chloramphenicol susceptible microorganisms: Bacterial gastroenteritis associated with bacterial diarrhea, bacterial pulmonary infections and bacterial infections of the urinary tract.

DOSAGE: Dogs-25 mg/lb body weight every 6 hours via oral

WARNING: Not for use in animals which are raised for food production. Chloramphenicol products should not be administered in conjunction with or 2 hours prior to the induction of general anesthesia with pentobarbital because of prolonged recovery.

Read package insert carefully before use.

Store at or below 25°C (77°F) in a dry place.

LOT: EXP:

VICETON

chloramphenicol tablet, coated

Product Information

Product Type		PRESCRIPTION ANIMAL DRUG	Item Code (Source)	NDC:12487-2210
ı	Route of Administration	ORAL	DEA Schedule	

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
Chloramphenicol (UNII: 66974FR9Q1) (Chloramphenicol - UNII:66974FR9Q1)	Chloramphenicol	1 g

Product Characteristics

Color	yello w	Score	2 pieces
Shape	OVAL	Size	6 mm
Flavor		Imprint Code	
Contains			

Packaging				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:12487-2210-1	100 in 1 BOTTLE		

Marketing Information			
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NADA	NADA055059	06/23/1975	

VICETON

chloramphenicol tablet, coated

Product Information				
Product Type	PRESCRIPTION ANIMAL DRUG	Item Code (Source)	NDC:12487-2212	
Route of Administration	ORAL	DEA Schedule		

Active Ingredient/Active Moiety			
	Ingredient Name	Basis of Strength	Strength
	Chloramphenicol (UNII: 66974FR9Q1) (Chloramphenicol - UNII:66974FR9Q1)	Chloramphenicol	250 mg

Product Characteristics			
Color	ye llo w	Score	2 pieces
Shape	ROUND	Size	10 mm
Flavor		Imprint Code	
Contains			

1	Packaging			
#	‡ Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:12487-2212-1	500 in 1 BOTTLE		

Marketing Info			
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NADA	NADA055059	06/23/1975	

VICETON

chloramphenicol tablet, coated

Product Information

Product Type	PRESCRIPTION ANIMAL DRUG	Item Code (Source)	NDC:12487-2213
Route of Administration	ORAL	DEA Schedule	

Active Ingredient/Active Moiety

ı					
I	I	Ingredient Name		Basis of Strength	Strength
I	Chloramphenicol (UNII: 66974FR9Q	Q1) (Chloramphenicol - UNII:66974FR90	(1)	Chloramphenicol	500 mg

Product Characteristics					
Color	ye llo w	Score	2 pieces		
Shape	ROUND	Size	13mm		
Flavor		Imprint Code			
Contains					

Packaging			
# Item Code	Package Description	Marketing Start Date	Marketing End Date
1 NDC:12487-2213-2	500 in 1 BOTTLE		

Marketing Information				
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date	
NADA	NADA055059	06/23/1975		

Labeler - Osborn (043653216)

Registrant - Bimeda Inc Division of Cross Vetpharm Group Ltd (060492923)

Establishment				
Name	Address	ID/FEI	Business Operations	
Bimeda Inc Division of Cross Vetpharm Group Ltd		060492923	manufacture	

Establishment				
Name	Address	ID/FEI	Business Operations	
YangZhou Pharmaceutical, Ltd.		544854599	api manufacture	

Revised: 11/2015 Osborn